

# Advanced Surveys (RC-304)



**REDCap**  
Research Electronic Data Capture

# Learning objectives

- Advanced survey setup
- Distribution
- Management
- Example of uses
- Twilio (texting)
- Action tags
- Best practices



**AUTHORIZATION TO RELEASE PATIENT HEALTH INFORMATION**

Medical Record Number \_\_\_\_\_

Patient Name: \_\_\_\_\_ Date of Birth \_\_\_\_\_

I authorize Seattle Children's Hospital to release information to: \_\_\_\_\_ Attn: \_\_\_\_\_

Organization/Individual: \_\_\_\_\_ Zip \_\_\_\_\_

Address \_\_\_\_\_ State \_\_\_\_\_ Fax # (\_\_\_\_) \_\_\_\_\_

City \_\_\_\_\_

Phone # (\_\_\_\_) \_\_\_\_\_

☐ Check this box to receive the information requested in an electronic format on Compact Disc (CD). Otherwise paper copies will be sent to the recipient. Electronic records (with the exception of Radiology images) will be password protected. To have the password emailed to you please provide your email address. If no email address is provided the password will be mailed separately to the postal address above.

E-Mail Address: \_\_\_\_\_

**Information to be Released to Organization/Individual:**

Requesting records: from \_\_\_\_\_ to \_\_\_\_\_

☐ Discharge Summaries ☐ Operative Reports ☐ Radiology Reports ☐ Drug/Alcohol Abuse Records

☐ Lab/Pathology Reports ☐ Clinic Notes ☐ Radiology Images ☐ Emergency Department Records

☐ Other (please specify) \_\_\_\_\_ ☐ Other \_\_\_\_\_

There may be a charge for copying the patient record, see the reverse side.

**Purpose of Release:**

☐ Transfer to another provider ☐ \_\_\_\_\_

☐ \_\_\_\_\_ (please specify) \_\_\_\_\_

What is a survey in REDCap terms?

A different way of doing data entry in your project

# General survey models

## Simple single survey

*(Covered in the "Intro to REDCap survey" class)*

- *Quick and easy to setup*
  - *Single record per response*
  - *Great for getting started with surveys*
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## Chained surveys

*(Covered in the "Intro to REDCap survey" class)*

- *Link multiple surveys together*
  - *"Skip" over certain surveys*
  - *Multiple survey responses linked to a single record*
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## Longitudinal surveys

- *Longitudinal mode turned on*
- *Repeat the same survey in multiple events*
- *Multiple survey responses per event per record*
- *Takes a bit more time and testing to setup*
- *Great for longer term studies*

# Longitudinal surveys

## Uses

Setup

Distribution



## Example Uses for longitudinal surveys

- ▶ Multiple timepoints data collection
  - ▶ Clinical studies
  - ▶ Pre and post surveys
- ▶ Registration and review surveys
- ▶ Projects with:
  - ▶ Limited FTE
  - ▶ Large participant numbers
  - ▶ Low frequency

# Longitudinal surveys

Uses

Setup

"To:" Email

Crafting your message

Triggering invites

Timing

Distribution



## Setup steps for longitudinal surveys

- ▶ Builds on the simple survey and chained survey examples
- ▶ Define per event how you want your surveys to run
- ▶ First event works similarly to a chained survey
- ▶ The first survey in any follow up events can and will have to get distributed in different ways:
  - ▶ Manually (e.g. in-clinic)
  - ▶ Via email invite (or automated survey invitations aka ASI)
  - ▶ Via text invite
- ▶ After the initial survey in each event, you can have your participant run through the surveys via auto-continue or survey queue.

# Longitudinal surveys

Uses

**Setup – Auto Invitations**

**"To:" Email**

Crafting your message

Triggering invites

Timing

Distribution



## Setup ASI – "To" emails

- ▶ REDCap needs to know where to send an invitation
- ▶ Defined in one of two places:
  - ▶ Participant list
    - ▶ Use when you have a list of emails beforehand
  - ▶ Define email (found in project setup)
    - ▶ Use when you don't know emails upfront
    - ▶ Needs to be a text field with an email validation
    - ▶ Simply calling it "email" is not enough
    - ▶ Only 1 email per record allowed



# Longitudinal surveys

Uses

**Setup – Auto Invitations**

"To:" Email

**Crafting your message**

Triggering invites

Timing

Distribution



## Setup ASI – Crafting your message

- ▶ Select a "From" email
  - ▶ You can add up to 3 emails to your account
- ▶ Define a subject line
  - ▶ Short and to the point is the best
- ▶ Define the invitation body
  - ▶ REDCap will add the a links automatically at the bottom of the page
  - ▶ HTML is allowed
    - ▶ Logo's or hyperlinks
  - ▶ Piping is allowed and encouraged
    - ▶ Try at least to add someone's name
    - ▶ Helps with the spam filters



# Longitudinal surveys

Uses

## Setup – Auto Invitations

"To:" Email

Crafting your message

## Triggering invites

Timing

Distribution



## Setup ASI – Triggering invites

- ▶ REDCap schedules an invite the moment the defined trigger becomes true
- ▶ Three main ways of triggering similar to survey queue
  - ▶ Survey completion
    - ▶ e.g. After consent survey is completed
  - ▶ Branching logic
    - ▶ e.g. After consent equals yes ([consent]=1)
  - ▶ Combination of the two
    - ▶ e.g. After the consent survey is completed and consent equals yes
- ▶ Bonus: Ensure logic is still true upon send
  - ▶ Advanced feature that has some interesting applications.

# Longitudinal surveys

Uses

## Setup – Auto Invitations

"To:" Email

Crafting your message

Triggering invites

## Timing

Distribution



## Setup ASI – Timing

- ▶ Two points of timing:
  - ▶ Initial survey invitation
    - ▶ Specific date and time
    - ▶ After a specific interval of time (from the moment of trigger)
    - ▶ "On the next ..."
  - ▶ Reminders
    - ▶ Up to 5 reminders
    - ▶ Set schedule (every 3 days, Mondays)
    - ▶ Remaining reminders get deleted when their survey is completed
- ▶ Pro tip: send things on Tuesday morning 7 a.m.

# Longitudinal surveys

Uses

Setup

**Distribution**

**Fire and Forget**

Fuzzy triggers

Kill switches

Interplay with repeatable forms



## Distribution – Fire & Forget

- ▶ Setup your entire project to "run" itself with minimal oversight
- ▶ Great for projects with limited manpower or that run for a long time
- ▶ Build all your ASI's with survey complete and logic triggers
  - ▶ Single trigger point model
    - ▶ i.e. everything gets scheduled based on 1 trigger but with different delays
  - ▶ Cascading model
    - ▶ Each survey completed triggers another

# Longitudinal surveys

Uses

Setup

**Distribution**

Fire and Forget

**Fuzzy triggers**

Kill switches

Interplay with repeatable forms



## Distribution – Fuzzy triggers

- ▶ You want to automate things, but you don't know upfront when certain events take place
  - ▶ e.g. Trigger a set of surveys after a ED visit
  - ▶ e.g. Trigger surveys after a child has had a concussion in a football match
- ▶ Instead of survey complete trigger, you trigger things of a variable.
  - ▶ Build a special form that contain those triggers
    - ▶ Checkboxes for immediate triggers
    - ▶ Date variables for fuzzy time triggers
      - ▶ e.g. Send survey 2 weeks before visit
  - ▶ Filled out by study personnel
  - ▶ Allows for more control

# Longitudinal surveys

Uses

Setup

**Distribution**

Fire and Forget

Fuzzy triggers

**Kill switches**

Interplay with repeatable forms



## Distribution – Kill Switches

- ▶ Flip side of a fuzzy trigger
- ▶ Disables scheduled surveys and reminders
- ▶ Build a special form (can be combined)
- ▶ Add branching logic to the ASI
  - ▶ e.g. `[kill(1)]<>1`
  - ▶ Turn on "Ensure logic is still true"
- ▶ Has to be managed by study personnel
- ▶ Secondary use:
  - ▶ "Reset" your survey invitations
    - ▶ Update invite text
  - ▶ REDCap auto filters completed surveys

# Longitudinal surveys

Uses

Setup

**Distribution**

Fire and Forget

Fuzzy triggers

Kill switches

**Interplay with repeat forms**



## Distribution – Repeatable forms

- ▶ Repeatable form functionality is still very new
- ▶ You can't setup ASI's for repeatable events (yet)
- ▶ You can have respondents repeat the same survey over and over
- ▶ Setting is located in the survey settings of a survey, but only after you made the survey repeating
- ▶ Use at your own risk
  - ▶ Recommendation: Test, test and test again

# Gift cards Models

## Gift cards are tricky

- *Potential for scamming is high*
  - *Build in at least one manual step*
  - *Talk to us if you want more advice*
- 

## Setup

- *Create a "gift card" instrument*
  - *Includes read only gift card field plus instructions*
  - *Setup ASI to send out when gift card field is not empty*
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## Running a gift card model

- *Tell your respondents that you will distribute the gift cards at a set time, but not instantaneously*
- *Build a report that displays all records eligible for a gift card, but that haven't had one yet*
- *Download the report in csv raw format, plug in codes and reupload with the data import tool*



# Texting & Robo-calling

## Twilio

- *Send invites as text via a third party service ([www.twilio.com](http://www.twilio.com))*
  - *Will have to create an account with Twilio*
  - *Costs money (<https://www.twilio.com/sms/pricing>)*
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## Texting / Robo calling options

- *Send survey link via text*
  - *Start survey as robo-call*
  - *Send text to invite to robo call*  
*(respondent calls to start survey)*
  - *Send text to invite to robo call*  
*(service calls when respondent replies by text)*
  - *Send survey as text conversation (inherently unsecure)*
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## Setup

- *Found in the project setup page*

# Action Tags

## Useful Action tags for surveys

- `@HIDDEN-SURVEY`
  - *Handy for markup by study team*
- `@READ-ONLY`
  - *For displaying preloaded data*
- `@LATITUDE & @LONGITUDE`
  - *For capturing someones location*
- `@NOW & @TODAY`
  - *For creating a "start" time stamp*
  - *Often combined with @HIDDEN*
- `@NONEOFTHEABOVE`
  - *To create an option in a checkbox that unchecks all other options*
- `@RANDOMORDER`
  - *To circumvent "multiple choice" bias*
- `@HIDECHOICE`
  - *To update options in an active survey*